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ENVIRONMENTAL PRIORITIES INITIATIVE
PRELIMINARY ASSESSMENT OF
CORNING GLASS WORKS
PREPARED UNDER

TDD NO. F3-8903-29
EPA NO. PA-2453
CONTRACT NO. 68-01-7346

FOR THE
HAZARDOUS SITE CONTROL DIVISION
U.S. ENVIRONMENTAL PROTECTION AGENCY

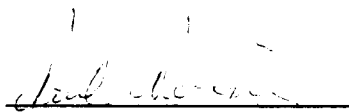
SEPTEMBER 21, 1989

NUJ CORPORATION
SUPERFUND DIVISION

SUBMITTED BY


KEVIN COSTON
PROJECT MANAGER

REVIEWED BY


PAUL PERSING
SECTION SUPERVISOR

APPROVED BY

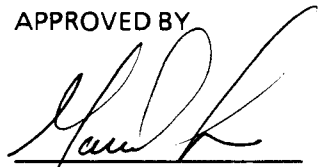

GARTH GLENN
REGIONAL OPERATIONS
MANAGER, FIT 3

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SECTION 1

1.0 INTRODUCTION

1.1 Authorization

NUS Corporation performed this work under Environmental Protection Agency Contract No. 68-01-7346. This specific report was prepared in accordance with Technical Directive Document No. F3-8903-29 for the Corning Glass Works site, located in Charleroi, Washington County, Pennsylvania.

1.2 Scope of Work

NUS FIT 3 was tasked to conduct an Environmental Priorities Initiative (EPI) preliminary assessment of the subject site.

1.3 Summary

The Corning Glass Works facility is located on a 25-acre property off McKean Avenue and Eighth Street in Charleroi, Washington County, Pennsylvania. The company has been operating at this location since 1936. Before Corning Glass Works owned the property, Macbeth-Evans Glass Company owned the property. Macbeth-Evans' operation consisted of acid etching, producing lamp chimneys, and manufacturing railroad lights. Corning Glass Works manufactured television tubes until the 1940s; Corning Glass has since manufactured such glassware as consumerware (non-specific glassware), dinnerware, and bakeware. All products are sent to the distribution center in Greencastle, Maryland. The glassware is produced by mixing batch material, heating, molding, cooling, and spray painting. Various coloring agents, such as nickel, manganese, and iron, are used, and various raw bath materials, such as sand, soda ash, limestone, sodium, sodium silicofluoride, and recyclable cullet are used. These materials eventually become hazardous liquids and solids that are disposed by various contractors.

Sixteen solid waste management units (SWMUs) have been identified for the site: the used chromic acid reduction area, paint baghouse dust collection system, off-specification batch material storage area, former solid waste storage area, the solid waste storage area, paint mix and filter press area, liquid waste drum storage area, dumpsters/roll-off containers, underground waste oil tanks, former electrostatic precipitator, former arsenic acid storage tanks, outfall no. 004, outfall no. 007, outfall no. 008, outfall no. 009, and the glaze spray and recovery area. Of the 16, 7 are hazardous waste storage areas: the used chromic acid reduction area, the paint baghouse dust collection area, the solid waste storage area, the dumpster/roll-off containers, the paint mix and filter press area, the liquid waste drum storage area, and the glaze spray and recovery area. The chromic acid waste is reduced from hexavalent chrome to trivalent chrome and is discharged into the Monongahela River under NPDES Permit No. PA0005746. The glaze sludge is currently located in the new manufacturing building. This sludge contains lead and silicone that are drummed and stored until Chemical Waste Management hauls the drums away. All other hazardous waste is either stored in the roll-off containers area, the liquid waste storage area, or the solid waste storage area. No evidence of release has been found for these areas. For a detailed description of each of the above-mentioned SWMUs and the wastes managed, please refer to section 4.1 of this report.

According to John Helferstein, senior project engineer, all hazardous wastes are transported to Cecos International, Envirite Corporation, GSX Chemical Service, and Chemical Waste Management, and all waste is transported off site within 90 days. These wastes include hazardous waste solids that contain arsenic, lead, and cadmium and liquid wastes that contain hydrochloric, sulfuric, caustic, and chromic acid solutions and water. It has been estimated that 1,000 gallons of acid waste are hauled away each year. It also has been estimated that 200 tons of solid waste are transported each year. During the site visit, an abandoned oil skimmer was observed with an oily sheen and a rust color liquid. Two other skimmers are located in the upper factory manufacturing building.

With few exceptions, the site and residents located within the study area are supplied potable water by public distribution systems. Sources located within the study area include two intakes that are upstream of the site. No public wells are located within a three-mile radius of the site. No home wells were identified within 1.5 miles of the site. The closest well is located 1.5 miles north of the site.

SECTION 2

2.0 THE SITE

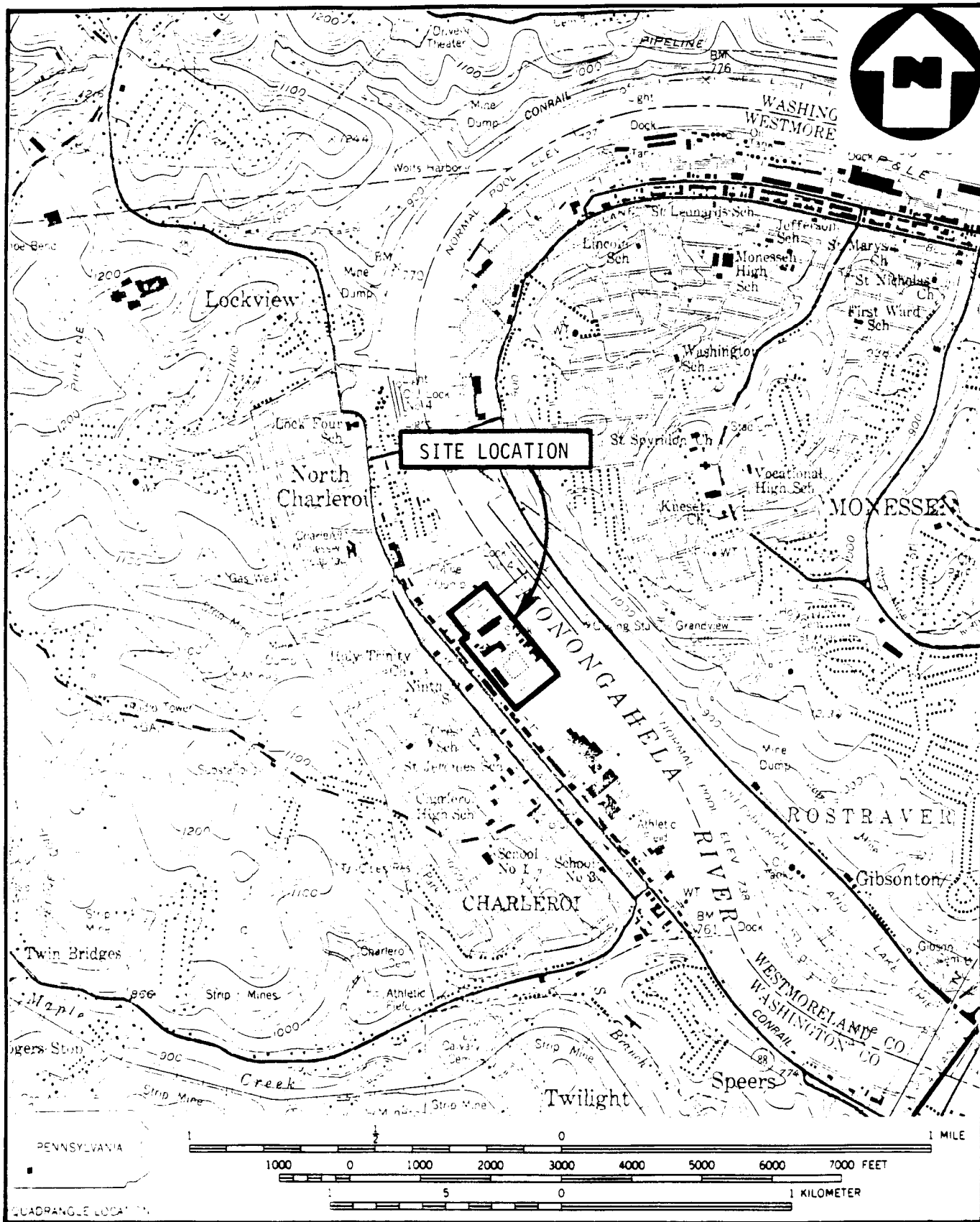
2.1 Location

The Corning Glass Works site, in Charleroi, Pennsylvania, is located on Eighth Street and McKean Avenue (see figure 2.1, page 2-2). The coordinates of the site are north 40° 08' 42" latitude and west 79° 53' 40" longitude. The site may be located on the United States Geological Survey (U.S.G.S.) Monongahela, Pennsylvania quadrangle topographic map by measuring 3.23 inches north and 3.75 inches west from the southeastern corner of the quadrangle.¹

2.2 Site Layout

The property is 25 acres in size and is rectangular in shape. The Penn Central Railroad tracks border the site along the southwestern and western boundaries. A sewage treatment plant borders the site to the northwest. The Monongahela River borders the site to the northeast and east. A parking lot borders the site to the southeast and east. The access road enters the property from the southwest, off McKean Avenue. The main gate, which is equipped with a guardhouse, is located in this area. The major features of this property include the upper factory (UF) manufacturing building, the middle factory (MF) manufacturing building, the new manufacturing building, and the administration offices (see figure 2.2, page 2-3).

The UF manufacturing building is located in the southeastern section of the property. This building is southeast of the MF manufacturing building. The UF manufacturing building houses the two furnaces used in production. Raw materials are placed in a feeder in the UF manufacturing building to begin production of glass through the furnaces. Two furnaces are used to heat the raw material into a glass solution. Tank furnace no. 61 is used to produce ovenware, and tank furnace no. 56 is used to produce dinnerware. Two oil skimmers receive contact cooling water from the cullet bins, which are located on the lower floor of the UF building. The oil skimmers separate oil from the contact cooling water. Various molds are used to mold the glass into shape. Large cooling fans are used to cool the product glass. Ware that does not require spray painting is packaged and shipped from this area. One area of concern is located near this manufacturing building. A 1,000-gallon underground waste oil tank is located adjacent to and northwest of the building. The tank holds waste oils skimmed from contact cooling water mixed with the glass.^{2,3}

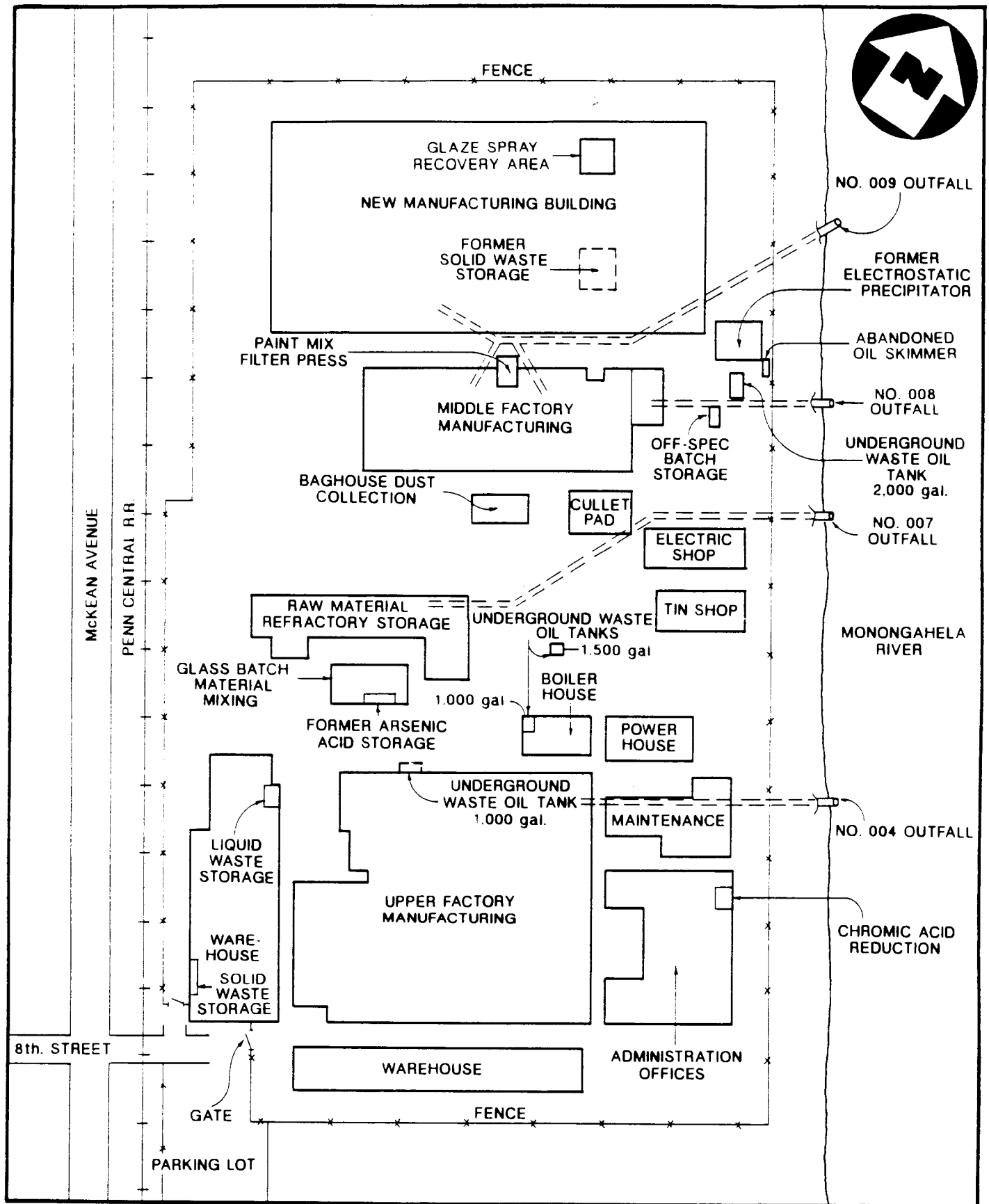


SOURCE: (7.5 MINUTE SERIES) U.S.G.S. MONONGAHELA, PA., QUAD.

SITE LOCATION MAP
CORNING GLASS WORKS
 SCALE 1: 24000

FIGURE 2.1





SITE SKETCH
CORNING GLASS WORKS
 (NO SCALE)

FIGURE



Immediately southwest of the UF manufacturing building is a warehouse. One area of concern is located within this warehouse. A liquid waste drum storage area is located in the northern section of the warehouse. This area is used for holding 30-gallon drums containing chromic acid waste and caustic waste. In the southern section of this warehouse, there is a solid waste storage area. This area is used for storing baghouse dust waste and spilled raw materials from off-specification batches. Adjacent to the southern side of the UF building is another warehouse building. The administration offices are located adjacent to the southeastern side of the UF building. In this same area, the maintenance building is adjacent to the northern side of the administration offices.^{2,3}

The chromic acid reduction area, an area of concern, is located in the maintenance building. This unit reduces hexavalent chrome to trivalent chrome and discharges into the Monongahela River through outfall no. 004.^{2,3}

A power house and boiler house are located directly north of the UF building. A 1,000-gallon underground waste oil tank is located on the western side of the boiler house. The waste oil tank is primarily used for waste compressor oil. Another 1,000-gallon waste oil tank is located 100 feet north of the boiler house waste oil tank. A glass batch material mixing house is located 100 feet northwest of the UF building. The former arsenic acid storage tanks are located in this mixing house. These tanks are located in the southeastern section of the mixing house. The raw material refractory storage is located exactly 50 feet northwest of the material mixing house.^{2,3}

The MF manufacturing building is located in the northern one-third of the property, northwest of the UF manufacturing building. Glassware that requires spray painting is transferred from the UF manufacturing building to the MF manufacturing building, where it is spray painted. Products are shipped from this building.^{2,3}

There are six areas of concern around the MF building. The first is the paint/filter press area, which is located in the northwestern section of the MF building. Glassware is sprayed in this area with color or designs. Paints are mixed together that are used in the spraying process. Also, overspray and washings from pressure pots are pumped through the filter press to remove solids. The second area is the crusher building's off-specification batch material storage area. This area is located 100 feet east of the MF building. Off-specification batches were collected on a cement pad. The third area is the paint baghouse dust collection area. This area, used for the removal of baghouse dust from dust collection chutes, is located approximately 100 feet south of the MF building. A drain is located directly under the baghouse. An underground waste oil tank is located 150 feet east of the MF building. This tank has a capacity of 2,000 gallons. It receives oil skimmed from contact cooling water. Currently, this area is not active. The fifth area of concern is the electrostatic precipitator. It is located 100 feet north of the MF building. The precipitator's purpose was to bring Corning Glass Works in compliance with the Pennsylvania Department of Environmental Resources (PA DER) air quality standards.^{2,3}

A new manufacturing facility is located directly northwest of the MF building. It is currently under construction. This area will manufacture a new line of bakeware called "New Suprema." This is a type of heating process that causes the glass to become ceramic. Also located in this building is a glaze spray and recovery area used to manufacture glaze overspray used on the glassware in the spray booths. This area was also the location of the former solid waste storage area.^{2,3}

The site is totally fenced. There are nine outfalls at this facility. There are all located along the eastern side of the Monongahela River. Only four of the outfalls are used and permitted. They are numbered 004, 007, 008, and 009. All the other outfalls have been either capped or disconnected.^{2,3}

2.3 Ownership History

The property is currently owned by Corning Glass. In 1916, Macbeth-Evans Company purchased Hamilton Bottle Works, which was located approximately where the new manufacturing facility is currently located. In 1893, Macbeth purchased the grounds on which Corning Glass Works' Charleroi Plant is now located. In 1895, Macbeth merged with Thomas Evans to become Macbeth-Evans Glass Company, which was sold to Corning Glass in 1936.^{3,4,5}

2.4 Site Use History

The site is currently an active manufacturer of consumerware, dinnerware, and bakeware. Corning uses a variety of batch materials to make glass. This glass solution is used to make such glassware as bowls, lids, plates, cups, and glass filters. Corning also spray paints some of its glassware with different designs. Most of the Corning bowls come with lids, but the lids are made at another facility. Corning ships its bowls to the distribution center in Greencastle, Maryland. Before 1940, Corning Glass Works produced television tubes. The Charleroi Plant at one time operated a small foundry that produced castings for molds.^{3,4,5}

In 1893, when Macbeth-Evans owned the Charleroi Plant, it was the world's largest producer of lamp chimneys and railroad lights. Macbeth-Evans continued these production operations when it merged with Thomas Evans in 1895. It is not clear what Macbeth-Evans did from 1916 until 1936, when it purchased the Hamilton Bottle Works.^{3,4,5}

2.5 Permit and Regulatory Action History

Corning Glass Works currently generates and ships hazardous waste under EPA ID No. PAD004326542. In 1980, Corning Glass Works filed a Notification of Hazardous Waste Activity. According to John Helferstein, senior project engineer, the notification was filed before the 1980 law (section 3010 of RCRA) in order to ensure that it met the deadline. Various waste codes were placed on the notification to ensure that present and future waste streams would be covered. Finally, in 1980, after the notification was filed, Corning Glass Works submitted its Part A Hazardous Waste Permit Application to EPA with only the waste codes that pertained to its present operation. These waste codes were D001 (ignitability), D004 (arsenic), D005 (barium), D006 (cadmium), D007 (chromium), D008 (lead), F001 (spent halogenated solvents), F017 [paint wastes (suspended code)], P010 (arsenic acid), and U013 [asbestos (suspended code)]. In a letter dated January 8, 1989, EPA acknowledged the receipt of the Part A and the Notification of Hazardous Waste Activity. In a letter dated July 21, 1981, EPA granted interim status to Corning Glass, after deleting waste codes F017 and U013 because those codes were temporarily suspended in the Federal Register on January 16, 1981. The facility was also given EPA ID No. PAD004326542. In February 1983, PA DER requested submittal of the Part B application for a Hazardous Waste Management Facility Permit. In 1983, Corning Glass submitted a Part B application to PA DER. This Part B was only for storage, not treatment. In February 1985, Corning requested a Part A Withdrawal/Part B Denial and requested permit-by-rule status. (Correspondence can be found in appendix A.)^{3,4,5,6,7,8,9,10,11,12}

According to a letter to PA DER, dated February 4, 1985, Corning Glass Works does not store wastes for more than 90 days, so the Part B was withdrawn. Permit-by-rule status was applied for on February 4, 1985 for the chrome reduction and paint rinsewater treatment system. On February 17, 1988, the request for permit-by-rule status was granted for Corning Glass Works by PA DER. On February 7, 1985, Corning Glass Works submitted a Notification of Hazardous Wastes Activity to delete and add wastes and delete and add an activity. In a letter dated February 1, 1985, the wastes deleted were F006 (wastewater treatment sludges), F007 (spent cyanide plating solutions), F008 (plating bath solutions), and F009 (spent stripping solutions). These wastes were never generated. Chrome-plating wastes are covered by D007 (chromium). The F017 code [paint wastes (suspended code)] that was eliminated by EPA/PA DER will be covered by D008 (lead). Wastes F003 (spent nonhalogenated solvents) and F005 (spent nonhalogenated solvents) were added as a precaution, in case they are needed later. To date, none of these wastes have been generated. The deletion of an activity was requested because Corning will no longer store or treat hazardous wastes. The addition of an activity was a request for permit-by-rule status, which was granted. According to John Helferstein, the waste codes are D001, D002, D005, D006, D007, and D008.^{3,11,13,14,15}

In August and October 1986, subsequent Notifications for Hazardous Waste Activity were submitted to EPA under the same EPA ID (no. PAD004326542). The waste codes that were added were D001 and D002 for the month of October and F002 for the month of August. F002 waste was never generated, according to John Helferstein. During the site visit, Mr. Helferstein told NUS FIT 3 that arsenic acid has not been used as a batch material since 1986, but there is no documentation that the waste code P010 has been removed. (Related correspondence can be found in appendix A.)^{3,5,15,16,17,18}

In April 1986, Corning Glass Works received a letter from Stephen R. Wassersug, of EPA, concerning SWMUs located at the Corning Glass Works facility in Charleroi, Pennsylvania. A letter, dated June 2, 1986, was sent to EPA concerning responses to the EPA letter by Corning Glass Works. All of Corning's SWMUs were described and explained in this letter. (Related correspondence can be found in appendix A.)^{3,5,19}

PA DER file information indicates that hazardous waste facility inspections of this site have been conducted since at least 1983. At least 21 inspections were performed from September 1983 to February 1988. No major violations have been noted during the inspections. During an inspection on June 4, 1986, Corning Glass was found in violation of improper manifesting on two counts. As a result, a Notice of Violation was sent to Corning Glass Works on October 23, 1986. In a letter agreement, a settlement of the violations was agreed upon on October 31, 1986 by Corning Glass Works and PA DER. Another inspection, on July 14, 1987, showed Corning Glass Works in violation of improper labeling in the chrome-plating area. A Notice of Violation was sent to Corning Glass Works in response to that violation on August 7, 1987.^{20,21} (Notices of Violation can be found in appendix B.)

The Corning Glass Works facility holds a variety of other permits. The permits are listed below:

Permit No.	Description	Date Issued	Expiration Date
PA63-309-010	Tank 66 melting furnace	Approximately 1974	Inactive
PA63-309-004	46 spray booth	September 22, 1981	August 31, 1983
PA63-309-005	48 spray booth	August 12, 1980	October 28, 1982
PA63-309-016	49 and 50 spray booths	Approximately 1974	Active
PA6378710	Pennsylvania water obstruction permit	March 20, 1981	December 31, 1981
PA6371202	Pennsylvania industrial wastes	September 9, 1971	Active
PA6380203	Pennsylvania industrial wastes construction	March 13, 1981	Active
PA46115	Pennsylvania Department of Health water	July 11, 1961	Active
PA63-309-044	Tank 56 melting furnace	April 23, 1986	August 31, 1991
PA63-309-046	Tunnel kiln - New Suprema	1988	June 30, 1989
PA63-309-047	Air pollution device - Rotoclones	1988	January 31, 1990
PA005746	NPDES	1985	Active

All of the above were issued by PA DER.¹⁵

2.6 Remedial Action to Date

Items relating to the Notices of Violation issued to Corning Glass Works have been addressed, as reflected in correspondence from Corning Glass Works [contained in PA DER file information (see appendix B)].

According to the Corning Glass Works Preparedness, Prevention, and Contingency Plan, there have been three releases and one spill associated with the facility.²²

On January 13, 1982, a small quantity of fuel oil, estimated at less than 10 gallons, was discovered in the Monongahela River at outfall no. 007. The oil came from a sump near the old fuel oil tanks and resulted from an accumulation of small spills that occurred when the fill connections were outside the containment dike around the fuel oil tanks. Corning Glass Works corrected the problem by enclosing the fill connections in the new dike around the storage tanks. Use of the oil from these tanks was immediately discontinued after discovering the oil spill. (The Contingency Plan can be found in appendix C.)²²

During the week of December 10, 1979, an oil sheen was noticed on the Monongahela River around the vicinity of outfall nos. 004 and 008. The United States Coast Guard, PA DER, and Corning Glass Works worked together on the cleanup. The leak occurred from under the oil booms installed in the Monongahela River around outfall nos. 004 and 008. Corning and PA DER used Dica-lite solvent granular material to remove the oil contained in the booms.²²

On August 31, 1979, a hydraulic line rupture resulted in a discharge of 100 to 150 gallons of oil onto the cellar floor below MF Tank 66 (currently inactive). The oil and cullet cooling water flowed into a collection sump. The flow was unusually high, since the operations started after a two-week shut down. The oily water overflowed the retention baffles in the skimmer and was discharged into the river. Corning Glass redesigned the oil/water separator system in the MF so that the flow of noncontact waters would not be directed through the separator.²²

On June 17, 1979, a discharge of approximately 25 gallons of fuel oil was discovered near a fuel tank. The discharge resulted from a leak in an underground distribution line. Corning Glass replaced the underground line that failed.²² (See appendix C for information on spills.)

SECTION 3

3.0 ENVIRONMENTAL SETTING

3.1 Water Supply

The area within three miles of the site is served by three public supply systems, which draw their water from groundwater wells and surface water intakes, and by private water supply wells.²³

The largest public supply system in the area is the Authority of the Borough of Charleroi. This system serves approximately 37,000 people in Charleroi, Speers, Dunlancy, Donora, and Monesson. The authority draws water from the Monongahela River at a single intake located approximately 1.1 miles upstream of the site.²³

The Belle Vernon Water Authority serves the community of Belle Vernon from a surface water intake on the Monongahela River, located approximately 2.5 miles upstream from the site. This system serves 8,500 people.^{24,25}

The Western Pennsylvania Water Company serves the community of Monongahela, approximately five miles north of the site, from a groundwater source. A small area served by this company is located within three miles of the site. The source is, however, located more than three miles from the site.^{24,25}

The remainder of the populace of the study area is served by private water supply wells. The formations tapped by these wells encompass the Quaternary alluvium and the bedrock units from the Pennsylvanian Washington Formation down section through the Pennsylvanian Glenshaw. In Washington County, the range in well depths is from 15 to 438 feet, with static water levels ranging from 0 to 175 feet. Most static water levels are from 20 to 40 feet. There are 1,011 people in the study area that rely on groundwater as their drinking water supply. The nearest home well to the site is located 1.5 miles north of the site.²³

3.2 Surface Waters

The nearest surface water is the Monongahela River, located adjacent to and east of the site. Surface runoff from the site would be expected to flow 15 feet downslope into the Monongahela River. The Monongahela River flows northwestwardly until it meets the Allegheny River to form the Ohio River.¹

The Monongahela River meets Pennsylvania water quality criteria for the protection of warm-water fish. In addition, the Monongahela is also used for industrial shipping purposes.²⁶

Two surface water intakes have been identified within the study area, upstream of the site. These intakes are used for a drinking water supply by the borough of Charleroi (the intake is 1.1 miles from site) and the Belle Vernon Water Authority (the intake is 2.5 miles from site).^{23,24,25}

A wetland is located three miles northwest of the site. It is in the palustrine system. The wetland is an open-water regime that is intermittently exposed and is permanent.²⁷

3.3 Hydrogeology

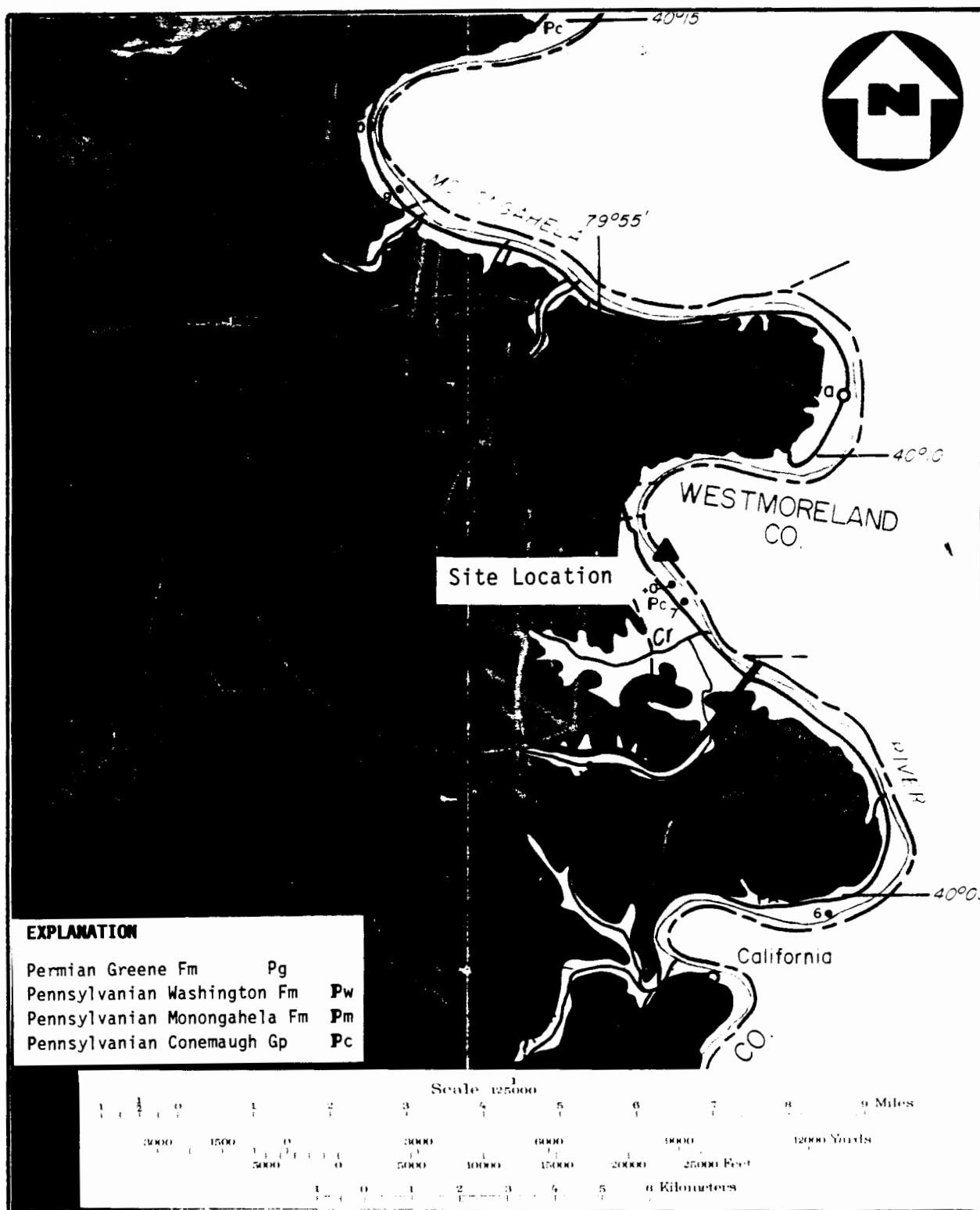
The geologic and hydrogeologic conditions in the study area were researched as part of the site investigation. A preliminary literature review was conducted to determine surface and subsurface geologic conditions, soil character, and the status of groundwater transport and storage.

3.3.1 Geology

The site is located in the Pittsburgh Plateaus Section of the Appalachian Plateaus Physiographic Province (see figure 3.1, page 3-3). This area is characterized by narrow, steep-sided valleys and sinuous ridges. The local streams form a dendritic drainage pattern.²⁸

The site is located approximately 3,000 feet northwest of the axis of the broad, northeast-plunging Belleverton anticline.^{28,29} The dip on the northwestern limb in the vicinity of the site is approximately 60 feet per mile, or less than 1 degree. No faults are mapped in the study area. The tectonic events that caused the broad folding present in the area generally formed an extensive fracture network in the consolidated units. Several well-developed fractures or joint sets are present in the study area.^{28,29}

The site is underlain by Quaternary alluvium. This material is composed of a mixture of clay, silt, sand, gravel, and possibly some boulders. These constituents were derived from rock material that has been transported and deposited by moving water. The texture ranges from poorly sorted to well sorted, and most particles have been rounded during transportation. Because of the high variability in sorting in this material, the porosity and permeability change significantly over short distances. The thickness of this material in Washington County ranges from 0 to 63 feet.^{28,29}



Source: Generalized Geologic Map of Washington County and Locations of Selected Wells, 1974.

Geologic Map
Corning Glass Works
Washington County, Pennsylvania

Figure 3.1



The bedrock beneath the alluvium at the site is the Pennsylvanian age Casselman Formation. The Casselman is frequently grouped with the underlying Glenshaw Formation. These two units are collectively referred to as the Conemaugh Group. These units are similar in lithology and are separated largely on the basis of the more marine nature of the Glenshaw. The composition of both formations is primarily sandstone, shale, and lesser amounts of coal and limestone. In the vicinity of the site, the thickness of the Casselman is 279 to 335 feet. The Glenshaw is not exposed in the site vicinity but is regionally 236 feet thick.^{28,29,30}

Overlying the Conemaugh Group, although removed by erosion of the site, is the Pennsylvanian Monongahela Group. This unit crops out in the hillsides less than 1/2 mile west of the site. The lithology of this unit is highly varied and includes limestone, coal, shale, siltstone, and sandstone. Several of the coals in this interval are minable, and the Pittsburgh coal has been strip mined locally. The thickness in Washington County ranges from 48 to 397 feet.^{1,2,28,29}

Overlying the Monongahela Group is the Washington Formation. The Washington is locally found only at the tops of hills, and much of the section has been removed by erosion. This unit is composed of alternating layers of shale and fine-grained sandstone with thin-bedded limestone and some coal beds. The thickness in Washington County ranges from 36 to 304 feet.^{1,2,28,29}

3.3.2 Soils

The soil mapped at the site is Urban land. This unit consists of areas where 85 percent or more of the surface is covered by buildings, parking lots, roads, or other impervious materials. Further information, because of the highly altered nature of these areas, is unavailable.³¹

3.3.3 Groundwater

Groundwater in the alluvium present at the site is stored and transmitted through primary porosity. The bedrock units in the area possess little primary porosity and are therefore largely dependent on secondary porosity (mostly fractures) for groundwater storage or movement. Because these fractures intersect the interface with the alluvium and extend to or through the contacts between the bedrock units, all of the units, both consolidated and unconsolidated, are considered to be in hydraulic communication. It is unclear whether the Monongahela River serves as a hydrologic divide that isolates the site from the area on the left bank of the river.^{28,29}

The alluvium, the uppermost unit at the site, is generally permeable and, where saturated, will yield moderate supplies of water to wells. Permeability may change significantly over short distances because of changes in the degree of sorting. Yields from only two wells completed in the alluvium are reported for Washington County, and the location of these wells relative to the site is unknown. These wells produce 200 and 350 gallons per minute (gpm). The depth range for wells into the alluvium is from 28 to 63 feet. The single available static water level reading is 14 feet.^{28,29}

The Conemaugh, which is the first bedrock unit underlying the alluvium beneath the site, is a source of small to moderate supplies of groundwater. In Washington County, some wells yield more than 50 gpm, but the median yield is 5 gpm. The range of reported well depths is 48 to 438 feet, although most wells are approximately 100 feet deep. The static water level ranges from 7 to 84 feet.^{28,29}

The Monongahela Group, which overlies the Conemaugh, although not present at the site, is generally poor as a water supply. This unit has a yield range of 0.1 to 50 gpm, with a median yield of about 1 gpm. The range in well depths is from 50 to 400 feet, with most wells over 100 feet. The static water levels range from 24 to 75 feet.^{28,29}

The uppermost unit in the area, the Washington Formation, is a poor water bearer. The soft shales that make up most of the section for this unit have almost no available primary porosity and are not well fractured. As a consequence, very little water can be moved or stored in this unit. Wells in this unit range from 36 to 304 feet in depth, and yields range from 1 to 70 gpm, with a median yield of 2 gpm. Most static water level measurements are in the range of 20 to 40 feet.^{28,29}

Shallow groundwater flow in the area is expected to mimic surface water flow and therefore progress from the highland area west of the site perpendicular to surface contours toward the Monongahela River, just east of the site.¹

3.4 Climate and Meteorology

The annual temperature for Donora, Pennsylvania, which is located approximately three miles northeast of the site, is 53.2°F. The average monthly temperatures range from 30.3°F in January to 73.7°F in July. The average annual precipitation for Donora, Pennsylvania is 36.33 inches. The average monthly precipitation ranges from 2.20 inches in February to 3.77 inches in August. The mean annual lake evaporation for the area of the site is approximately 28 inches. The net annual precipitation for the site area is approximately 8.33 inches. A 1-year, 24-hour rainfall will produce approximately 2.35 inches of rain.^{32,33,34,35}

3.5 Land Use

Land use within three miles of the site consists primarily of residential communities and abandoned strip-mine areas. The site lies within the limits of Charleroi, and immediately to the northeast lies the Monongahela River and then the town of Monessen, Pennsylvania. The Monongahela River runs southeast-northwestwardly through the area. The Monongahela River marks the county line between Washington County, Westmoreland County, and Fayette County. Within the study area, the areas one to two miles northwest and south of the site are moderately populated. Many strip mines are located in this area. Land use along the Monongahela River is mostly industrialized.^{1,2}

3.6 Population Distribution

A routine house count was made for the one-, two-, and three-mile radii surrounding the site. Also taken into account were the known populations of the surrounding communities. The calculated population (3.8 persons per house) is as follows: 1 mile: 8,148 people; 2 miles: 10,238 people; and 3 miles: 12,570 people. The total population within 3 miles is 30,956 people. House counts were also taken from the United States Geological Survey (U.S.G.S.) Donora, Monongahela, Fayette City, and California, Pennsylvania 7.5 minute quadrangle maps.^{1,36}

3.7 Critical Environments

Two federally listed endangered birds are expected to be found as transient species in the project area. They are the bald eagle (Haliaeetus leucocephalus) and the peregrine falcon (Falco peregrinus). There is no listed critical habitat for these species in the project area.³⁷

APPENDIX D



ER-SWM-51:REV. 10/86

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. PAD0004326542		Manifest Document No. 93431		2. Page 1 of 1		Information in the shaded areas is not required by Federal law but is required by State law.					
3. Generator's Name and Mailing Address CORNING GLASS WORKS CHARLELOT, PA. 15022 412 483-6531						A. State Manifest Document Number PAB 4193431							
						B. State Gen. ID							
4. Generator's Phone						C. State Trans. ID PA-AH 0002							
5. Transporter 1 Company Name G.S.X. CHEMICAL SERVICE			6. US EPA ID Number M.D.D. 980554653			D. Transporter's Phone ()							
7. Transporter 2 Company Name			8. US EPA ID Number			E. State Trans. ID PA-AH							
9. Designated Facility Name and Site Address G.S.X. CHEMICAL SERVICE 7415 LESSENER AVENUE CLEVELAND, OHIO 44111-47						F. Transporter's Phone ()							
						G. State Facility's ID Not Required							
10. US EPA ID Number 10HD980569438						H. Facility's Phone 216 441-5628							
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) a. HAZARDOUS WASTE SOLID ORN-E UN-9189 HOS (CONTAINS, ARSENIC, LEAD, CADMIUM)					12. Containers		13. Total		14. Unit		15. Waste No.		
					No. Type		Quantity		Wt/Vol				
b.					1		CM		25,000		P		
c.													
d.													
J. Additional Descriptions for Materials Listed Above (include physical state and hazard code) Haz. Code Physical State Haz. Code Physical State						K. Handling Codes for Wastes Listed Above							
						a. T21-45							
a. LAB CODE						c.							
b. 674-3818						d.							
15. Special Handling Instructions and Additional Information G.S.X. CODE A09895													
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment. OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.													
Printed/Typed Name DEANIS D. NELVIN						Signature <i>Deanis D. Nelvin</i>				Month Day Year 01 23 89			
17. Transporter 1 Acknowledgement of Receipt of Materials						Printed/Typed Name <i>James M. ...</i>				Signature <i>James M. ...</i>		Month Day Year 01 23 89	
18. Transporter 2 Acknowledgement of Receipt of Materials						Printed/Typed Name				Signature		Month Day Year	
19. Discrepancy Indication Space													
20. Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.													
Name						Signature				Month Day Year			

PAB 4193431



UNIFORM HAZARDOUS WASTE MANIFEST		Generator's US EPA ID No. PA D.O.O.43.26.24.2		Manifest No. 93453		2. Page 1 of 1		Information in the shaded areas is not required by Federal law but is required by State law.					
3. Generator's Name and Mailing Address CORNING GLASS WORKS CHARLOTTE, PA 15022						A. State Manifest Document Number PAB 4193464							
4. Generator's Phone 412 458 6531						B. State Gen. ID							
5. Transporter 1 Company Name ENVIRITE CORP				6. US EPA ID Number OH D98.056.89.92		C. State Trans. ID PA-AH 01.3.1							
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone (216) 458-6438							
9. Designated Facility Name and Site Address ENVIRITE CORP 2050 CLEVELAND AVE CLEVELAND OHIO 44117				10. US EPA ID Number OH D98.056.89.92		E. State Trans. ID PA-AH							
						F. Transporter's Phone ()							
						G. State Facility's ID Not Required							
						H. Facility's Phone (216) 458-6238							
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)						12. Containers		13. Total Quantity		14. Unit Wt/Vol		15. Waste No.	
WASTE LIQUID, HYDROCARBON AND SULFURIC ACIDS UN 1789 (D002) CORROSIVE KQ.						001 TT		0.0.248 G		G		D002	
b.													
c.													
d.													
J. Additional Descriptions for Materials Listed Above (include physical state and hazard code)						K. Handling Codes for Wastes Listed Above							
Haz. Code		Physical State		Haz. Code		Physical State		a.		c.			
a. C		L		c. C		L							
b. C		L		d. C		L		b.		d.			
15. Special Handling Instructions and Additional Information													
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment. OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.													
Printed/Typed Name DENNIS D. MELVIN						Signature <i>Dennis D. Melvin</i>				Month Day Year 10/1/89			
17. Transporter 1 Acknowledgement of Receipt of Materials													
Printed/Typed Name RON FARMER						Signature <i>Ron Farmer</i>				Month Day Year 10/1/89			
18. Transporter 2 Acknowledgement of Receipt of Materials													
Printed/Typed Name						Signature				Month Day Year			
19. Discrepancy Indication Space													
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.													
Printed/Typed Name						Signature				Month Day Year			



PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES
Bureau of Waste Management
P. O. Box 2063
Harrisburg, PA 17120

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)
Form Approved. OMB No. 2050-0039 Expires 9-30-88

ER-SWM-51:REV. 10/88

UNIFORM HAZARDOUS WASTE MANIFEST		Generator's US EPA ID No. PA0004326542	Manifest No. 95742	2. Page 1 of		Information in the shaded areas is not required by Federal law but is required by State law.	
3. Generator's Name and Mailing Address CORITING GLASS WORKS CHARLELOT, PA. 15022				A. State Manifest Document Number PAB 4193442			
4. Generator's Phone (412) 483-6531				B. State Gen. ID			
5. Transporter 1 Company Name ENVIRITE CORPORATION		6. US EPA ID Number OHD980568992		C. State Trans. ID PA-AH 0131		D. Transporter's Phone (216) 456-6238	
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Trans. ID PA-AH		F. Transporter's Phone ()	
9. Designated Facility Name and Site Address ENVIRITE CORPORATION 2050 CENTRAL AVENUE CANTON, OHIO 44707		10. US EPA ID Number OHD. 980568992		G. State Facility's ID Not Required		H. Facility's Phone (216) 456-6238	
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)			12. Containers		13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
a. CHROMIC ACID SOLUTION UN-1755 NOS HAZARDOUS WASTE LIQUIB RQ 1000-454			No. Type 001 T.T		006.01	G	D002 D008 D006 D007
b.							
c.							
d.							
J. Additional Descriptions for Materials Listed Above (Include physical state and hazard code)				K. Handling Codes for Wastes Listed Above			
Haz. Code Physical State		Haz. Code Physical State		a.		c.	
a.		c.		b.		d.	
b.		d.					
15. Special Handling Instructions and Additional Information							
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment. OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.							
Printed/Typed Name DENNIS D. MELVIN				Signature Dennis D. Melvin		Month Day Year 04 13 89	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name T. L. H. H. H.				Signature T. L. H. H. H.		Month Day Year 04 13 89	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Discrepancy Indication Space							
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.							
Printed/Typed Name				Signature		Month Day Year	



ER-SWM-51:REV. 6/87

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. P.A. 0004-326572	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law but is required by State law.	
3. Generator's Name and Mailing Address Corning Glass Works Eight + McKean Ave, Charleroi, Pa 15023				A. State Manifest Document Number PAB 5957733		
4. Generator's Phone (412) 481-2275				B. State Gen. ID		
5. Transporter 1 Company Name CELUS INTERNATIONAL		6. US EPA ID Number N.Y. D08-03-3624		C. State Trans. ID PA-AH 02-6-0		
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone ()		
9. Designated Facility Name and Site Address CELUS INTERNATIONAL INC 4879 Spring Grove Ave Cincinnati, Ohio 45232		10. US EPA ID Number O.H. 0000816629		E. State Trans. ID PA-AH		
				F. Transporter's Phone ()		
				G. State Facility's ID Not Required		
				H. Facility's Phone (513) 681-5931		
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers	13. Total Quantity	14. Unit Wt/Vol	15. Waste No.	
a. RQ Waste Corrosive Liquid N.O.S. UN 1760 Corrosive Material		0.01 DM	0.0050	P	D008 D007 D002	
b. RQ Waste Corrosive Solid N.O.S. Corrosive Material UN 1759		0.03 DM	0.0040	P	D008 D007 D002	
c. RQ Waste Corrosive Solid N.O.S. Corrosive Material UN 1759		0.01 DM	0.0020	P	D002	
d.						
J. Additional Descriptions for Materials Listed Above (Include physical state and hazard code)		K. Handling Codes for Wastes Listed Above				
a. Haz. Code Physical State [C] [S]		c. Haz. Code Physical State [C] [S]		e.		
b. [C] [S]		d. [] []		f.		
15. Special Handling Instructions and Additional Information Product code 2059001-LAS WD* 247641						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment. OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name Richard C. Becken		Signature Richard C. Becken		Month Day Year 11/1/87		
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name Richard C. Becken		Signature Richard C. Becken		Month Day Year 11/1/87		
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name		Signature		Month Day Year		
19. Discrepancy Indication Space						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.						
Printed/Typed Name		Signature		Month Day Year		

APPENDIX E

CLOSURE PLAN
FOR
CORNING GLASS WORKS
CHARLEROI PLANT

I-1 CLOSURE PLAN

I-1a Closure Performance Standard

This plan was designed to ensure that upon closure, the hazardous waste facilities will not require further maintenance and controls, minimizes or eliminates threats to human health and the environment, and avoids escape of hazardous waste, hazardous waste constituents, leachate, contaminated rainfall, or waste decomposition products to the ground or surface waters or to the atmosphere. The following sections present, in detail, efforts to be made at the Corning Glass Works, Charleroi Plant to satisfy the closure performance standard.

I-1b Partial and Final Closure Activities

At present there are no closure activities in progress. Any additional modifications to the existing facilities or equipment as related to the management of hazardous waste storage or treatment will result in Corning Glass Works updating and revising the closure plan.

The hazardous waste facilities presently in operation are presented in Table I-1.

I-1 The maximum inventory of wastes in storage and treatment at any given time during the life of the facility is presented in Table I-2.

I-1d Inventory Removal and Disposal or Decontamination of Equipment

The inventory of wastes will be removed for disposal prior to beginning decontamination procedures.

Following waste removal, all storage and treatment facilities will be dismantled (if required) and thoroughly cleaned with water. The work will be supervised and performed by qualified Corning Glass Works personnel. Personnel will be equipped with coveralls, rubber boots and rubber gloves. Respirators will be used when cleaning the containers which store the Off-Spec Glass Batch Material. Safety glasses and masks will be used during other cleaning operations.

Water used for cleaning operations will be collected and pumped to a tanker for transport to the Paint Mix Room Rinse Water Treatment. The rinse waters will be treated at this facility until analytical test results indicate the effluent is of sufficient quality for discharge. Rinsewaters generated from decontaminating the Paint Mix Room Rinsewater Treatment System will be collected and trucked off-site for disposal in an approved landfill.

Prior to leaving any of the site locations undergoing decontamination, decontamination of personnel protective clothing will be conducted by removing all bulk material from the boots and spraying, washing, and scrubbing with detergent solution all outside protective clothing materials as well as exposed skin surfaces (i.e., facial area).

I-1d(1) Closure of Containers

All the drum containers (located in Building 39) will be removed for transport to an approved hazardous waste landfill. The drums will be loaded onto the transport vehicle using a fork-lift. A list of hazardous wastes along with EPA ID number can be found in Table I-3.

The skid mounted containers which are used in Building 39 and 71 for storage of Baghouse Paint Dust and Paint Mix Room Filter Press Sludge and Off Spec Glass Batch Material. These containers will be decontaminated by scraping the bulk material from the interior surfaces of the units followed by a series of water washes. The scraping and washing procedure will be repeated until visual inspection indicates all of the material is flushed from the containers. The wash water from cleaning the Baghouse Dust and Paint Mix Room Filter Press Sludge containers, will be pumped to a tanker for transport to the Paint Mix Room Rinsewater Treatment System. The washwater from the Off Spec Glass Batch Material will be contained. The water will be tested, and if hazardous, will be drummed and hauled off-site.

Approximately 500 gallons of wastewater are anticipated to result from each container washing (containers to be triple rinsed).

The Waste Transporters which are used to transport Paint Mix Room Filter Press Sludge from the manufacturing process to the storage location will be decontaminated by similar scraping and water washing procedures as outlined for the containers.

Approximately 80 gallons of wastewater are anticipated to result from each transporter washing (transporters to be triple rinsed).

Upon completion of the container and transporter decontamination, the storage areas in Building 39 and 71 will receive a series of water washes to remove any accumulated spillage or bulk matter. Wash water from this operation will be pumped to a tanker for transport to the Paint Mix Room Rinsewater Treatment System.

A sample of the final rinse water will be collected. These samples will be tested in accordance with all existing SWA-846 procedures and parameters for any waste that had been stored in that area. Once the results have been verified, these areas will be considered decontaminated.

Approximately 950 and 1400 gallons of wastewater are anticipated from decontaminating Building Nos. 39 and 71 storage areas respectively.

Wash waters from the container and transporter decontamination procedures will be discharged for treatment in the Paint Mix Room Rinsewater Treatment System. The treated waste will be discharged to the Monongahela River after analytical test results indicate the discharge is within the NPDES permit limits.

I-1d(2) Closure of Treatment Facilities (Tanks)

The Paint Mix Room Rinsewater Treatment System consists of a receiving and treatment sump, mixer, pump, filter press, piping, lime and poly feed systems.

After closure of the containers outlined in section I-1d(1), the treatment system will be decontaminated by scraping and washing all bulk material from surfaces which have been in contact with waste. The following procedure will be implemented:

- a. The receiving and treatment sump will be drained, scraped and flushed.
- b. The mixer shaft and propeller will be washed and flushed into the sump.
- c. Residual mass generated from the sump and mixer cleaning operations will be pumped for removal in the filter press. Dewatered sludge from this activity will be conveyed to a 55 gallon drum for disposal in a secure landfill.

- d. System piping and pumps will be thoroughly flushed with water.
- e. The filter press will be disassembled and washed using water and, if required, detergent.
- f. Wastewater generated from pipe, pump and filter press cleaning activities will be discharged to the sump and pumped to a tanker for disposal in a secure landfill.

It is anticipated that 500 gallons will be required for this operation.

The Mold Plating Rinsewater Treatment System consists of a receiving sump, pump, piping and batch treatment tank. This facility will be decontaminated by flushing with water until the residual chrome concentration is below 5 mg/l. The flushing water will be treated in the batch tank as is the current operation. It is anticipated that 550 gallons will be required for this operation.

I-1 Schedule for closure

Within 90 days after receipt of the final volume of hazardous wastes, final closure activities will be initiated. Completion of closure will be within 180 days of this occurrence. All financial calculations are based upon a closure date in the year 1986.

The USEPA Regional Administrator will be notified by Corning Glass Works 180 days before beginning final closure. The proposed schedule for closure is presented as Figure I-1.

Final closure will be supervised and certified by a professional engineer and the Owner.

I-1f Extensions for Closure Time.

Corning Glass Works will not require all extension for closure time.

I-2 POST-CLOSURE PLANS

Post-closure care will not be needed for this facility because this is not a disposal facility.

I-3 NOTICE IN DEED AND NOTICE TO LOCAL LAND AUTHORITY

Corning Glass Works is not a hazardous waste disposal facility. Therefore, notation is not necessary in the deed informing potential purchasers of restrictions associated with a disposal site.

I-4 CLOSURE COST ESTIMATE

An estimated (\$5850 FEBRUARY 1986) will be needed to close the Corning Glass Works hazardous waste storage and treatment facilities. The closure costs are presented in Table I-4 and include removal of waste inventory, decontamination, disposal of decontamination wash water and sludge and closure certification.

This closure cost estimate will be kept on file at the Corning Glass facility. It will be revised whenever a change in the closure plan affects the cost of closure. It will be adjusted annually (from the date of its original development) to reflect change in closure cost brought about in inflation. The Department of Commerce's Annual Implicit Price Deflator for Gross National Product will be used to make this adjustment.

I-5 FINANCIAL ASSURANCE MECHANISM FOR CLOSURE

Corning Glass Works has demonstrated financial assurance for closure of hazardous waste facilities through the financial test specified in subpart H of 40 CFR Parts 264 and 265. Included in the Appendix is data submitted to the USEPA Regional Administrator outlining the basis for this test.

I-6 POST-CLOSURE COST ESTIMATE

Since all wastes will be disposed of offsite, there will be no post-closure activities or costs.

I-7 FINANCIAL ASSURANCE MECHANISM FOR POST-CLOSURE

Since all wastes will be disposed of offsite, there will be no post-closure activities or costs.

I-8 LIABILITY INSURANCE

I-8a Sudden Insurance

Corning Glass Works has demonstrated financial assurance for sudden accidental occurrences, through the financial test specified in Subpart H of 40 CFR Parts 264 and 265. Included in the Appendix is data submitted to the USEPA Regional Administrator outlining the basis for the specified test.

I-8b Nonsudden Insurance

Corning Glass Works is a storage facility, therefore, no liability insurance is required for a nonsudden accidental occurrence.

I-8c Variance Procedures

Corning Glass Works will not request the Regional Administrator for a reduction of liability amounts.

I-8d Adjustment Procedures

If the Regional Administrator increases the amounts of liability coverage or elects to improve sudden liability coverage requirements, Corning Glass Works will immediately seek an adjustment to the financial test discussed above.

I-9 STATE ASSUMPTION OF RESPONSIBILITY

Corning Glass Works will not request state assumption of the legal or financial responsibilities.

TABLE I-1

CORNING GLASS WORKS
CHARLEROI PLANT

HAZARDOUS WASTE FACILITIES

<u>Quantity</u>	<u>Description</u>	<u>Hazardous Waste</u>
10	Skid mounted Containers	Off Spec. Glass Batch Materials
5	Skid mounted Containers	Baghouse Paint Dust, Paint Mix Room Filter Press Sludge
18	Plastic Bags in Fiberboard Drums	Electrostatic Precipitator Dust
1	Covered Waste Transporters	Paint Mix Room Filter Press Sludge
18	Plastic Bags in Fiberboard Drums	Paint Mix Room Filter Press Disposable Media
1	Paint/Mix Room Rinse Water Treatment System (Filter Press)	Paint Mix Room Rinsewater
1	Mold Plating Rinse Water Treatment System	Mold Plating Rinsewaters
10	15-gallon plastic Carboy	Spent Plating Solution
4	15-gallon plastic Carboy	Spent Ultrasonic Cleaning Solution
3	Covered Waste Transporters	Baghouse Paint Dust Dust

TABLE I-2

CORNING GLASS WORKS
CHARLEROI PLANT

MAXIMUM INVENTORY OF HAZARDOUS WASTE

<u>Hazardous Waste</u>	<u>Quantity</u>	<u>Units</u>
Off-Spec. Glass Batch Material	26.5	yd ³
Baghouse Paint Dust and Paint Mix Room Filter Press Sludge	13.25	yd ³
Paint Mix Room Rinsewater	550	Gal.
Paint Mix Room Filter Press Disposable Media	2.5	yd ³
Electrostatic Precipitator Dust	5.0	yd ³
Spent Plating Solution	150	Gal.
Mold Plating Rinsewaters	750	Gal.
Spent Ultrasonic Cleaning Solution	75	Gal.

TABLE I-3

CORNING GLASS WORKS
CHARLEROI PLANT

HAZARDOUS WASTES STORED IN BUILDING 39

<u>Waste</u>	<u>UN ID</u>	<u>EPA ID</u>
Oakite Cleaner	1760	D002 - D004 D007 - D008
Waste Chromic Acid Solution	1755	D002 - D006 D007 - D008
Spent Citric Acid	1760	D002

TABLE I-4CORNING GLASS WORKS
CHARLEROI PLANTHAZARDOUS WASTE FACILITIES CLOSURE COSUT ESTIMATE

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost(\$)</u>	<u>Total Cost(\$)</u>
1. Removal of Waste Inventory (Disposal Costs)				
Off Spec. Glass Batch Material	1	30 yd ³	800	800
Baghouse Paint Dust and Paint Mix Room Filter Press Sludge	(a)	-	-	-
Paint Mix Room Filter Press Disposable Media	(a)	-	-	-
Electrostatic Precip. Dust	1	30 yd ³	800	800
Spent Plating Solution	150	gal	1	250
Spent Ultrasonic Cleaning Solution	75	gal	1	150
2. Decontamination of Storage Containers, Waste Transporters and Containment Areas				
Baghouse Paint Sludge and Paint Mix Room Filter Press Sludge Containers (5 containers, 8 hr. ea)	40	Mh	13.5	550
Off Spec. Glass Batch Material Containers (10 containers, 8 hr. ea)	80	Mh	13.5	1145
Waste Transporters	32	Mh	13.5	500
Containment Area Bldg. 39	16	Mh	13.5	220
Containment Area Bldg. 71	16	Mh	13.5	220

TABLE I-4 (cont.)

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost(\$)</u>	<u>Total Cost(\$)</u>
3. Decontamination of Treatment Facilities				
Paint Mix Room Rinse- water Treatment System	8	Mh	13.5	200
Mold Plating Rinsewater Treatment System	8	Mh	13.5	200
4. Disposal of Decontam- inated Wash Water and Sludge	100	gal	1	200
5. Closure certification	1	LS	320	320
6. Contingency	1	LS	305	305
7. Total Closure Cost				\$5300

Notes:

- (a) Included in 30 yd³ dumpster with Electrostatic Precipitator Dust.
- (b) Costs in August 1986 dollars.
- (c) Mh denoted manhours.

ANTICIPATED CLOSURE SCHEDULE HAZARDOUS WASTE STORAGE AND TREATMENT FACILITIES

[illegible]

SECTION J

OTHER FEDERAL LAWS

At this time, we believe this facility to be in compliance with the following Federal laws; Wild and Scenic Rivers Act, National Historic Preservation Act of 1966, Endangered Species Act, Coastal Zone Management Act, and the Fish and Wildlife Coordination Act.

APPENDIX F

NAME: Corning Glass Works
 ADDRESS: Corning, New York 14830
 FACILITY: Charleroi Plant
 LOCATION: Charleroi, Washington County

PA 0005746
 PERMIT NUMBER

004
 DISCHARGE NUMBER

MONITORING PERIOD

YEAR	MO	DAY	YEAR	MO	DAY
89	01	1	89	01	31
(20-21)	(22-23)	(24-25)	(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)	X	(1 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (54-61)			NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)			
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM				UNITS		
Flow	SAMPLE MEASUREMENT	1899	1899	NGD	*	*	*	*	0	1/31	meas		
	PERMIT REQUIREMENT	*	*		*	*	*		1/month	meas			
Total Suspended Solids	SAMPLE MEASUREMENT	7.5	7.5	lbs/day	*	*	*	mg/l	0	1/31	24 hr comp		
	PERMIT REQUIREMENT	101	190		*	*	50		1/month	24 hr comp			
Temperature	SAMPLE MEASUREMENT	*	*	*	*	*	56°	°F	0	1/31	I-S		
	PERMIT REQUIREMENT	*	*		*	*	100		1/month	"I-S"			
Oil & Grease	SAMPLE MEASUREMENT	*	*	*	*	2.3	2.3	mg/l	0	1/31	3 grab 24 hrs		
	PERMIT REQUIREMENT	*	*		*	15	30		1/month	3 grab/24 hr			
Chromium (Total)	SAMPLE MEASUREMENT	*	*	*	*	*	.03	mg/l	0	1/31	grab		
	PERMIT REQUIREMENT	*	*		*	*	1.0		1/month	grab			
Arsenic	SAMPLE MEASUREMENT	*	*	*	*	*	<.005	mg/l		1/31	grab		
	PERMIT REQUIREMENT	*	*		*	*	.3		1/month	grab			
pH	SAMPLE MEASUREMENT	*	*	*	7.4	*	7.4	stand units	0	1/31	grab		
	PERMIT REQUIREMENT	*	*		*	6.0	*		9.0	1/month	grab		
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT, SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319. (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.)				TELEPHONE		DATE					
R. W. Matthews, V.P. Manuf. & Eng., Consumer & Sci. Grp.						412 483-6531		89	02	17			
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT				AREA CODE		NUMBER			YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NAME Corning Glass Works
ADDRESS Corning, New York 14830

PA0005746
PERMIT NUMBER

007
DISCHARGE NUMBER

FACILITY Charlottesville Plant
LOCATION Charlottesville, Washington County

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
89	01	1	89	01	31
(20-21)	(22-23)	(24-25)	(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.


PARAMETER (32-37)	X	(1 Card Only) QUANTITY OR LOADING (46-51)			(1 Card Only) QUALITY OR CONCENTRATION (38-45) (46-53) (54-61)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
Flow		NO	FLOW	MGD	*	*	*	*		1/mo.	meas- ured
Total Suspended Solids		*		lbs/day	*	25	50	mg/l		1/mo.	24 hr. comp.
pH		*	*	*	6.0	*	9.0	stan- dard units		1/mo.	grab
Dissolved Iron		*	*	*	*	*	7.0	mg/l		1/mo.	grab

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY KNOWLEDGE OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT, SEE 18 USC 1001 AND 33 USC 1312. Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE	DATE			
R. W. Matthews, V.P. Manuf. & Eng., Cons. & Science Grp.			412 483-6531	89 02 17			
TYPED OR PRINTED			AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

~ STORM WATER ONLY ~

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
89	01	1			89	01
(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

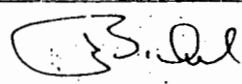
PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (45-53)			(4 Card Only) QUALITY OR CONCENTRATION (54-61)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
Flow	SAMPLE MEASUREMENT	NO	FLOW	MGD	*	*	*	*			
	PERMIT REQUIREMENT	*	*		*	*	*				1/month
Temperature	SAMPLE MEASUREMENT	*	*	*	*	*		°F			
	PERMIT REQUIREMENT	*	*		*	*	100			1/month	"i-s"
Total Suspended Solids	SAMPLE MEASUREMENT			lbs/day	*	*	*	mg/l			
	PERMIT REQUIREMENT	50	100		*	*	50			1/month	24 hr. comp.
Oil & Grease	SAMPLE MEASUREMENT	*	*	*	*			mg/l			
	PERMIT REQUIREMENT	*	*		*	15	30			1/month	3 grab/24 hr.
Arsenic	SAMPLE MEASUREMENT	*	*	*	*	*		mg/l			
	PERMIT REQUIREMENT	*	*		*	*	.3			1/month	grab
pH	SAMPLE MEASUREMENT	*	*	*	*	*		stand. units			
	PERMIT REQUIREMENT	*	*		6.0	9.0			1/month	grab	
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

R. W. Matthews, V.P. Manuf. & Eng., Cons. & Science Grp.

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN, AND BASED ON MY REVIEW OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.)



SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE

412 483-6531

AREA CODE NUMBER

DATE

89 02 17

YEAR MO DAY

~ PROCESS DOWN - NO FLOW ~

NAME Corning Glass Works
ADDRESS Corning, New York 14830

PA0005746
PERMIT NUMBER

009
DISCHARGE NUMBER

FACILITY Charlevoix Plant
LOCATION Charlevoix, Washington County

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
89	01	1	89	01	31
(20.21)	(22.23)	(24.25)	(26.27)	(28.29)	(30.31)

NOTE: Read instructions before completing this form.

PARAMETER (32.17)	X	(1 Card Only) QUANTITY OR LOADING (46.51)			(4 Card Only) QUALITY OR CONCENTRATION (46.53)			NO. EX (62.43)	FREQUENCY OF ANALYSIS (64.48)	SAMPLE TYPE (69.70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
Flow	SAMPLE MEASUREMENT	NO	FLOW	MGD	*	*	*	*	1/mo.	measured
	PERMIT REQUIREMENT	*	*		*	*	*			
Temperature	SAMPLE MEASUREMENT	*	*	°F	*	*	*	100	1/mo.	"i-s"
	PERMIT REQUIREMENT	*	*		*	*	*			
Total Suspended Solids	SAMPLE MEASUREMENT			lbs/day	*	*	*	mg/l	1/mo.	24 hr. comp.
	PERMIT REQUIREMENT	15	30		*	*	50			
Iron	SAMPLE MEASUREMENT			lbs/day	*	*	*	mg/l	1/mo.	24 hr. comp.
	PERMIT REQUIREMENT	0.21	0.42		*	*	1.0			
Lead	SAMPLE MEASUREMENT			lbs/day	*	*	*	mg/l	1/mo.	24 hr. comp.
	PERMIT REQUIREMENT	0.21	0.42		*	*	1.0			
Cadmium	SAMPLE MEASUREMENT			lbs/day	*	*	*	mg/l	1/mo.	24 hr. comp.
	PERMIT REQUIREMENT	0.21	0.42		*	*	1.0			
Arsenic	SAMPLE MEASUREMENT			lbs/day	*	*	*	mg/l	1/mo.	24 hr. comp.
	PERMIT REQUIREMENT	0.21	0.42		*	*	0.30			

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

R. W. Matthews, V.P. Manuf. & Eng., Cons. & Science Grp.

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY KNOWLEDGE OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT, SEE 10 USC § 1001 AND 33 USC § 1325. (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.)

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

B. J. J.

TELEPHONE

412 483-6531

AREA CODE NUMBER

DATE

89 02 17

YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

~ PROCESS DOWN - BUSINESS CYCLE ~

Location of different
Corning Glass Works
Corning, New York 14830
Facility: Charleroi Plant
Location: Charleroi, Washington County

DISCHARGE MONITORING REPORT (DMR)
 (17-19)
PA 0005746
 PERMIT NUMBER
009
 DISCHARGE NUMBER
 MONITORING PERIOD
 FROM YEAR **89** MO **01** DAY **1** TO YEAR **89** MO **01** DAY **31**
 (20 31) (22 23) (24 25) (26 27) (28 29) (30 31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)	X	(1 Card Only) QUANTITY OR LOADING (34-37)			(4 Card Only) QUALITY OR CONCENTRATION (34-41)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
pH	SAMPLE MEASUREMENT	*	*	*		*		std.			
	PERMIT REQUIREMENT	*	*		6.0	*	9.0	units		1/month	grab
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
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	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

TITLE PRINCIPAL EXECUTIVE OFFICER
R. W. Matthews, V.P. Manuf. & Eng., Cons. & Science Grp.
 TYPED OR PRINTED
 I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN, AND BASED ON MY KNOWLEDGE OF THESE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 USC 1001 AND 1003, 1004, 1005, 1006, 1007, 1008, 1009, 1010, 1011, 1012, 1013, 1014, 1015, 1016, 1017, 1018, 1019, 1020, 1021, 1022, 1023, 1024, 1025, 1026, 1027, 1028, 1029, 1030, 1031, 1032, 1033, 1034, 1035, 1036, 1037, 1038, 1039, 1040, 1041, 1042, 1043, 1044, 1045, 1046, 1047, 1048, 1049, 1050, 1051, 1052, 1053, 1054, 1055, 1056, 1057, 1058, 1059, 1060, 1061, 1062, 1063, 1064, 1065, 1066, 1067, 1068, 1069, 1070, 1071, 1072, 1073, 1074, 1075, 1076, 1077, 1078, 1079, 1080, 1081, 1082, 1083, 1084, 1085, 1086, 1087, 1088, 1089, 1090, 1091, 1092, 1093, 1094, 1095, 1096, 1097, 1098, 1099, 1100, 1101, 1102, 1103, 1104, 1105, 1106, 1107, 1108, 1109, 1110, 1111, 1112, 1113, 1114, 1115, 1116, 1117, 1118, 1119, 1120, 1121, 1122, 1123, 1124, 1125, 1126, 1127, 1128, 1129, 1130, 1131, 1132, 1133, 1134, 1135, 1136, 1137, 1138, 1139, 1140, 1141, 1142, 1143, 1144, 1145, 1146, 1147, 1148, 1149, 1150, 1151, 1152, 1153, 1154, 1155, 1156, 1157, 1158, 1159, 1160, 1161, 1162, 1163, 1164, 1165, 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1664, 1665, 1666, 1667, 1668, 1669, 1670, 1671, 1672, 1673, 1674, 1675, 1676, 1677, 1678, 1679, 1680, 1681, 1682, 1683, 1684, 1685, 1686, 1687, 1688, 1689, 1690, 1691, 1692, 1693, 1694, 1695, 1696, 1697, 1698, 1699, 1700, 1701, 1702, 1703, 1704, 1705, 1706, 1707, 1708, 1709, 1710, 1711, 1712, 1713, 1714, 1715, 1716, 1717, 1718, 1719, 1720, 1721, 1722, 1723, 1724, 1725, 1726, 1727, 1728, 1729, 1730, 1731, 1732, 1733, 1734, 1735, 1736, 1737, 1738, 1739, 1740, 1741, 1742, 1743, 1744, 1745, 1746, 1747, 1748, 1749, 1750, 1751, 1752, 1753, 1754, 1755, 1756, 1757, 1758, 1759, 1760, 1761, 1762, 1763, 1764, 1765, 1766, 1767, 1768, 1769, 1770, 1771, 1772, 1773, 1774, 1775, 1776, 1777, 1778, 1779, 1780, 1781, 1782, 1783, 1784, 1785, 1786, 1787, 1788, 1789, 1790, 1791, 1792, 1793, 1794, 1795, 1796, 1797, 1798, 1799, 1800, 1801, 1802, 1803, 1804, 1805, 1806, 1807, 1808, 1809, 1810, 1811, 1812, 1813, 1814, 1815, 1816, 1817, 1818, 1819, 1820, 1821, 1822, 1823, 1824, 1825, 1826, 1827, 1828, 1829, 1830, 1831, 1832, 1833, 1834, 1835, 1836, 1837, 1838, 1839, 1840, 1841, 1842, 1843, 1844, 1845, 1846, 1847, 1848, 1849, 1850, 1851, 1852, 1853, 1854, 1855, 1856, 1857, 1858, 1859, 1860, 1861, 1862, 1863, 1864, 1865, 1866, 1867, 1868, 1869, 1870, 1871, 1872, 1873, 1874, 1875, 1876, 1877, 1878, 1879, 1880, 1881, 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898, 1899, 1900, 1901, 1902, 1903, 1904, 1905, 1906, 1907, 1908, 1909, 1910, 1911, 1912, 1913, 1914, 1915, 1916, 1917, 1918, 1919, 1920, 1921, 1922, 1923, 1924, 1925, 1926, 1927, 1928, 1929, 1930, 1931, 1932, 1933, 1934, 1935, 1936, 1937, 1938, 1939, 1940, 1941, 1942, 1943, 1944, 1945, 1946, 1947, 1948, 1949, 1950, 1951, 1952, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 2680, 2681, 2682, 2683, 2684, 2685, 2686, 2687, 2688, 2689, 2690, 2691, 2692, 2693, 2694, 2695, 2696, 2697, 2698, 2699, 2700, 2701, 2702, 270



SECTION 4

4.0 WASTE TYPES AND QUANTITIES

Hazardous wastes generated on site have been classified by the facility as including the EPA RCRA waste identification numbers D001 (ignitability), D002 (corrosive), D004 (arsenic), D005 (barium), D006 (cadmium), D007 (chromium), D008 (lead), F001 (spent halogenated solvents), F002 (spent halogenated solvents), F006 (wastewater treatment sludges), F007 (spent cyanide plating solutions), F008 (plating bath sludges), F009 (spent stripping solutions), and F017 [paint wastes (suspended code)]. According to John Helferstein, of Corning Glass Works, the EPA RCRA waste identification numbers F001, F002, F006, F007, F008, F009, F017, and U013 were inadvertently placed on a Notification of Hazardous Waste Form before the Part A was submitted. These waste codes never existed for this facility. The waste code F017 was suspended by EPA in January 1981. However, F017 (paint waste) exhibits ignitability; therefore, the waste was given a D001 waste code. The waste codes presented were derived from the facility's Notification of Hazardous Waste Activity and Part A of the Hazardous Waste Permit Application and may not totally represent all wastes present on site.^{2,3,6,16}

The waste codes that are handled at the facility are defined as follows: D001, ignitability; D002, corrosive; D004, arsenic; D005, barium; D006, cadmium; D007, chromium; and D008, lead. According to Mr. Helferstein, the wastes are stored in 55-gallon drums. They are removed from the site by various contractors on a monthly basis (manifests can be found in appendix D). It has been estimated that 1,000 gallons per year of liquid wastes are removed and 200 tons of solid waste are removed each year. These wastes are shipped off site for disposal to Cecos International, Envirote Corporation, GSA Chemical Service, and Chemical Waste Management.^{3,4,38}

4.1 Solid Waste Management Units

Sixteen SWMUs have been identified for the site: the used chromic acid reduction area, paint baghouse dust collection system, off-specification batch material storage area, former solid waste storage area, the solid waste storage area, paint mix and filter press area, liquid waste drum storage area, dumpsters/roll-off containers, underground waste oil tanks, former electrostatic precipitator, former arsenic acid storage tanks, outfall no. 004, outfall no. 007, outfall no. 008, outfall no. 009, and the glaze spray and recovery area. Of the 16, 7 are hazardous storage areas: the used chromic acid reduction area, the paint baghouse dust collection area, the solid waste storage area, the paint mix and filter press area, the liquid waste drum storage area, and the glaze spray and recovery area. The chromic acid waste is reduced from hexavalent chrome to trivalent chrome and is discharged into the Monongahela River. The reduction area is located in the administration building on the lower level. The glaze sludge, consisting of lead and silicone, is drummed at the glaze spray and recovery system and stored, awaiting removal. All other hazardous waste is stored at the liquid waste storage area and the solid waste storage areas.^{2,3,38}

4.1.1 SWMU No. 1

Used Chromic Acid Reduction Area

The chromic acid reduction area is located in the southeastern part of the property. It is located inside the building that houses the administrative offices, on the lower level. This area is part of the chrome-plating operation. In this area, hexavalent chrome is reduced to trivalent chrome and is discharged into the Monongahela River under NPDES Permit No. PA0005746. The holding and reduction tanks in this area are used in the reduction process. Both tanks are fiberglass. During the site visit, both tanks contained hexavalent and trivalent chrome. It was also noted that the holding tank is drained periodically. Rinse water is treated and sent through outfall no. 004. The acid rinsewater is treated with lime to reduce acidity. The hexavalent chrome is reduced to trivalent chrome by the use of sodium hydrosulfite.^{2,3,5}

Date of Start-Up

Available information indicates that this area has been active since 1980.^{3,5}

Date of Closure

This unit is currently active. A formal closure plan can be found in appendix E.^{2,3,5}

Wastes Managed

Wastes managed here include hexavalent chrome, which is reduced to trivalent chrome, and rinse water. Both are treated and then discharged through outfall no. 004. The maximum volume of hexavalent chrome that is reduced to trivalent chrome in the reduction tank is 750 gallons. The hexavalent chrome is treated with sodium hydrosulfite. According to Mr. Helferstein, D007 waste is managed here.³

Release Controls

The chromic acid reduction system piping is all polyvinyl chloride (PVC). The holding and reduction tanks are fiberglass. The entire area is diked by a polyurethane epoxy retaining curb, and the floor is also coated with polyurethane. All discharges are regulated by NPDES Permit No. PA0005746. No other controls were evident.^{2,3,5}

History of Releases

Discharges from the chromic acid reduction system are regulated through outfall no. 004 by an NPDES permit.^{3,5}

4.1.2 SWMU No. 2

Paint Baghouse Dust Collection System

The paint baghouse is located 20 feet southeast of the MF manufacturing building. This area is used for the removal of baghouse dust from shake-down chutes. The shake-down chutes are the means by which the baghouse dust is transported to the hoppers. There is a cement pad with cement curbing around it. According to available information, the dust material contains lead, selenium, cobalt, iron, and glass fragments. This material is collected in portable, one-cubic-yard hoppers. The hoppers were taken to the former solid waste storage area, but now they are taken to the current solid waste storage area when they become full. During the site visit, a drain was observed under the baghouse collector. Site representatives did not know where the drain led; however, the standing water must occasionally be pumped from that area because the drain becomes blocked.^{2,3,5}

Date of Start-Up

Available information indicates that this area has been active since 1974.^{3,5}

Date of Closure

This unit is currently active.^{2,3}

Wastes Managed

The baghouse dust that contains lead, selenium, cobalt, iron, and glass fragments is the waste that is managed in this area. The dust is placed in hoppers after it is passed through the chutes. The hoppers are then transported to the solid waste storage area. The waste type managed here is D008.^{3,5}

Release Controls

The baghouse dust collector chutes are made of steel, and all seams are welded. The baghouse dust is placed in portable, one-cubic-yard metal hoppers. Full hoppers are taken to the solid waste storage area. The baghouse has a cement pad with cement curbing around it. There was a drain located under the baghouse. The site representative did not know where it led, but he mentioned that the drain was blocked.^{2,3,5}

History of Releases

No releases from this area have been reported. No evidence of spills or releases was observed during the site visit.^{2,3,5}

4.1.3 SWMU No. 3

Off-Specification Batch Material Storage Area

The off-specification batch material storage area is located in the northeastern section of the site. Off-specification batch material is collected on a cement pad and stored until a five-cubic-yard hopper has been filled. The material was taken to the former solid waste disposal area, but now it is taken to the current solid waste storage area to be disposed off site by Alchem-Tron, of Cleveland, Ohio. At one time, the off-specification batch contained arsenic. According to Mr. Helferstein, arsenic has not been used since 1986 as a batch material. The materials now stored at this location are not hazardous wastes. The different batch materials located in this area are spilled raw material and material from furnaces that have to be removed. During the site visit, no full hoppers were observed in this area.^{2,3,5,38}

Date of Start-Up

Available information indicates that this area has been active since 1980.^{3,5}

Date of Closure

This unit is currently active.^{2,3}

Wastes Managed

The off-specification batches formerly contained arsenic. The waste materials that are managed at this area are spilled raw materials and materials from the furnaces.^{3,5,38}

Release Controls

Off-specification batches are collected on the cement pad and stored until a five-cubic-yard metal hopper has been filled. The material is then taken to the solid waste storage area for off-site disposal. No other controls were evident.^{2,3,5}

History of Releases

No releases from this unit have been reported. No evidence of spills or releases was observed during the site visit.^{2,3,5}

4.1.4 SWMU No. 4

Former Solid Waste Storage Area

The solid waste storage area is currently inactive. It was located where the new manufacturing building is located. According to Corning Glass Works' SWMU Response Letter, dated June 2, 1986, this area was a 30- by 33-foot cement pad that sloped to 4 feet below grade toward a cement wall with a non-drained sump that did not have a pump or any pipes leading from it. According to available information, this area was used to house the solid waste standard 30-cubic-yard roll-off container. The area was under a roof and was located outside the flood plain. Various wastes stored here included paint and filter press sludge, paint baghouse dust, electrostatic precipitator dust, and off-specification batch material wastes. These wastes were removed by GSX Chemical Service, of Cleveland, Ohio. During the site visit, this area was occupied by a larger manufacturing building. According to Mr. Helferstein, solid wastes were placed in roll-off containers stored in a roll-off storage area near the middle factory storage. According to available information, there is no individual closure plan for this unit. (A formal closure plan for the facility as a whole can be found in appendix E.)^{2,3,5}

Date of Start-Up

Available information indicates that this area was first operated in 1980.^{3,5}

Date of Closure

This unit has been inactive since 1988.^{2,3}

Wastes Managed

The wastes that were managed here included paint and filter press sludge, paint baghouse dust, electrostatic precipitator dust, and off-specification batch material wastes. The wastes types stored here were D008, D004, D005, and D006. The wastes were removed by GSX Chemical Service, of Cleveland, Ohio.^{3,5} (Manifests can be found in appendix D.)

Release Controls

The cement pad is 30 by 33 feet in size and slopes to 4 feet below grade to a cement wall with a non-drained sump. This area is also located outside of the flood plain.⁵

History of Releases

No releases from this unit have been reported.^{2,5}

4.1.5 SWMU No. 5

Paint Mix and Filter Press Area

The paint mix and filter press area is located in the MF manufacturing building. This is a contained area for the mixing of paints used in the coating process. Most of the paints used are a mixture of glass pigments and alcohol; the only solvent used is alcohol. In the spray booths is a trough that collects overspray that has been mixed with water. The washings, a combination of water and paints, are collected in a sump and pumped to a fiberglass holding tank to wait for treatment to remove heavy metals before being discharged through an NPDES-permitted outfall. The area is curbed in cement, and all floors and drains are angled to prevent untreated releases to outfall no. 009. The waste stream flows as follows: washings from various pressure pits are pumped to a sump. Washings are mixed to prevent sedimentation, then the washings are run through a filter press where the solids are removed. The liquid is transferred to a treatment tank where the soluble heavy metals are removed before discharge. Treatment consists of a lime and poly treatment. During the site visit, Mr. Helferstein mentioned that the filter press paper is thrown in the dumpsters. In a follow-up conversation, Mr. Helferstein stated that there are two sets of dumpsters, one for municipal trash and the other for filter press paper.^{2,3,5}

Date of Start-Up

Available information indicates that this area has been active since 1981.^{3,5}

Date of Closure

This unit is currently active.^{2,3}

Wastes Managed

The wastes managed here were washings that were collected in a sump and pumped to a central fiberglass holding tank. The liquid is transferred to a treatment tank where the soluble heavy metals are removed before discharge. The filter cake from the filter press is on the filter paper. The filter cake collects on the filter paper and is placed into a container to be removed by Alchem-Tron, of Cleveland, Ohio. The filter paper is thrown into the dumpsters. The washings are eventually discharged through outfall no. 009.^{3,5}

Release Controls

Washings from the mixing of paints are collected in a sump and pumped to a central fiberglass holding tank to await treatment. The area is curbed in cement, and all floor drains are sloped to keep untreated releases from the outfall. All discharges are regulated by an NPDES-permitted outfall. No other controls were observed during the site visit.^{2,3,5}

History of Releases

All treated releases are regulated by an NPDES permit from outfall no. 009. No other evidence of releases has been found for this area.^{2,3,5}

4.1.6 SWMU No. 6

Liquid Waste Drum Storage Area

The liquid waste drum storage area is located in a warehouse next to the UF building. This area is in the northern part of the warehouse. This area is a cement floor and cement curb containment area for the storage of drummed liquid wastes. There are two levels in this area to hold pallets of drums. There are six independently diked areas for the drums. The drum storage area is divided into sections. One side is for caustics and the other side is for acids. This area is designated by a sign as a hazardous waste area. The containment cement curb areas are five by 4.5 feet by five inches in size. There is a non-drained sump at the low end of the area. This sump does not have a pump. It is basically a low-lined area that would receive any liquids. During the site visit, approximately 18 drums of liquid wastes were observed in this area. No HNU readings above background were recorded in this area.^{2,3,5}

Date of Start-Up

Available information indicates that this area has been active since 1983.^{3,5}

Date of Closure

This unit is currently active.^{2,3}

Wastes Managed

Wastes managed here are spent chromic acid wastes, hydrochloric acids, sulfuric acids, and lead. The wastes types stored here are D002, D007, and D008. During the site visit, 12 acid drums and 6 caustic drums were observed in this area. Wastes are transported off site by Cecos International, of Cincinnati, Ohio, and Envirite Corporation, of Canton, Ohio. (Manifests can be found in appendix D.)^{3,5}

Release Controls

This unit has a five- by 4.5-foot by 5-inch cement curb diked area for the protection and storage of drummed liquid wastes. The sealed drums are placed on racks that have their own separated dike containment. There are no external drains in the area. There is a non-drained sump at the low end of the area. No other controls were observed during the site visit.^{2,3,5}

History of Releases

No releases from this area have been reported or observed.^{2,3,5}

4.1.7 SWMU No. 7

Dumpsters/Roll-Off Containers

The dumpsters are located in various places around the facility. According to Mr. Helferstein, there are two sets of dumpsters. Dumpsters are also called roll-off containers, according to available information. One set of dumpsters/roll-off containers is used for municipal trash, such as plant trash, lunchroom wastes, and office papers. The other set is used for filter press paper disposal, paint baghouse dust, and off-specification batch material wastes. During the site visit, Mr. Helferstein stated that the filter press paper was disposed in the dumpsters and that these dumpsters and their contents are disposed by GSX Chemical Service, of Cleveland, Ohio. No HNU readings above background were recorded in these areas.^{2,3,5,38,39}

Date of Start-Up

Available information indicates that these units have been active since the start of the plant's operation.³

Date of Closure

These units are currently active.^{2,3}

Wastes Managed

Wastes managed at these areas where dumpsters are located are nonhazardous refuse, including waste paper and office and lunchroom waste. The filter paper from the filter press is also disposed in the dumpsters. Washings and solids from the mixing of paints are collected and pumped through a filter press to collect the solids and remove them from the solution that is to be discharged through the outfall. Then the filter press paper is discarded in the dumpsters, which are removed each week by GSX Chemical Service, of Cleveland, Ohio.^{2,3,5,38}

Release Controls

The dumpsters are welded on all sides, and a lid is present. No other controls or containment measures were present.²

History of Releases

No evidence or record of release was reported or observed for these units.^{2,3,5}

4.1.8 SWMU No. 8

Underground Waste Oil Tanks

The underground waste oil tanks are located in various places around the site. All of the tanks were installed in 1980. There are four underground waste oil tanks. Three are currently active. The first tank is located on the northwestern side of the UF manufacturing building. This tank has a capacity of 1,000 gallons. It is constructed of steel and is coated with black asphaltic paint. The tank is set within a cement dike. This tank receives waste compressor oil. The second tank is located on the western corner of the boiler house. This tank also has a capacity of 1,000 gallons. It is a steel tank, coated with black asphaltic paint. This tank receives waste oils skimmed from the contact cooling water. Another tank received those waste oils listed above. This tank held 2,000 gallons and was constructed the same as the others. It is no longer used because the manufacturing area that it serviced is no longer in operation. The fourth tank is located 50 feet north of the boiler house. It is constructed the same as the others. It has a capacity of 1,500 gallons. This tank receives waste process machine oil. All of the tank's waste oils are pumped out and purchased by PetroCON, of Blawnox, Pennsylvania. According to available information, the two tanks that receive the waste oil skimmed from the oil skimmers received the oil through piping. Currently, however, only one tank is in service. Oil is manually poured into the other two tanks. During the site visit, oil stains were noted on the ground around the inlet pipe to the underground waste oil tank next to the boiler house.^{2,3,4,5,22}

Date of Start-Up

Available information indicates that these units have been active since 1980.^{3,5}

Date of Closure

Three units are currently active. A fourth unit has been closed since 1986.^{3,5}

Wastes Managed

Waste managed at these locations are various waste oils. Of the two 1,000-gallon tanks, one receives waste compressor oil and the other receives waste oils skimmed from contact cooling waters. The 1,500-gallon tank receives waste process machine oil, and the 2,000 gallon tank, when it was in use, received waste oil skimmed from contact cooling water. The waste oil from all the tanks is purchased by PetroCON, of Blawnox, Pennsylvania.^{3,5}

Release Controls

All of the tanks are constructed of steel and are coated with black asphaltic paint. A 1,000-gallon tank that receives waste compressor oil is set within a cement dike. The 1,500-gallon tank that receives waste process machine oil is also set within a cement dike. No other release controls were observed at the site.^{2,3,5}

History of Releases

No evidence or record of release was reported or observed for these units.^{2,3,5}

4.1.9 SWMU No. 9

Former Electrostatic Precipitator

The former electrostatic precipitator is located in the northern section of the property. The precipitator was designed to bring the facility in compliance with PA DER Air Quality Standards, according to Corning Glass Works site representatives. According to available information, this unit ceased operation in April 1986, because the glass melting tank that the precipitator serviced was no longer used. The EP dust, which was EP toxic for arsenic, was collected in plastic bags and transported to a solid waste storage area to be disposed off site. Available information suggests that there are no individual closure plans for this unit.^{2,3,5}

Date of Start-Up

Available information indicates that this unit first became active in 1975.^{3,5}

Date of Closure

This unit is currently inactive. This unit ceased operation in April 1986 because the glass melting tank that it serviced was no longer used. According to available information, there are no plans to produce glass in this tank in the future. No individual closure plan for this unit is available. (See appendix E for the facility's format closure plan for the facility as a whole.)^{3,5}

Wastes Managed

The wastes managed here was EP dust, which was EP toxic for arsenic. It was collected in 30-milliliter plastic bags and transported to the solid waste storage area for off-site disposal.⁵

Release Controls

The EP dust was collected in 30 milliliter plastic bags and transported to the solid waste storage area. The precipitator was designed to bring Corning Glass Works in compliance with PA DER Air Quality Standards.^{3,5}

History of Releases

No evidence or record of release was reported or observed for this unit.^{2,3,5}

4.1.10 SWMU No. 10

Former Arsenic Acid Storage Tanks

The former arsenic acid storage tanks are located in the southern part of the glass batch material mixing building. Both tanks have the capacity to hold 4,000 gallons. One tank was used as an emergency tank. Each tank had a sump hole in case of a leak. The first holding tank sump hole is 15.5 by 11.7 by 3.6 feet in size, and the emergency tank sump hole is 10 by 4 by 3.6 feet in size. The volume that the holding tank sump hole will hold is approximately 880 gallons more than the holding tank can hold. The emergency tank can hold 4,000 gallons, but the sump hole can only hold 1,080 gallons. A concrete landing creates a smaller space for the emergency tank. The landing for the holding tank is a metal grate that does not take up space, thereby creating more volume. During the site visit, both tanks were empty. According to Mr. Helferstein, the arsenic acid is no longer used as a batch material.^{2,3,5}

Date of Start-Up

Available information indicates that the no. 1 tank was first used in 1974 and the no. 2 tank was first used in 1980.³

Date of Closure

These units are currently inactive. The tanks are no longer used since arsenic was discontinued as a batch material. The tanks were shut down in 1988.³

Wastes Managed

The waste managed at this location consist of the former arsenic acid storage tanks themselves. These tanks were used for the storage of unused arsenic acid.^{2,3,5}

Release Controls

The area consists of two separately enclosed storage tanks and pumping apparatus. The floors are cement, and the building is constructed of cement block. There are no external drains in this area. Each tank closure had a sump hole. The first tank sump hole was 15.5 by 11.7 by 3.6 feet in size, and the emergency tank sump hole was 10 by 4 by 3.6 feet in size. A concrete landing caused the sump hole to be smaller. The unit also has float alarms for high levels.^{3,5}

History of Releases

No evidence or record of release was reported or observed for this unit.^{2,3,5}

4.1.11 SWMU No. 11

Outfall No. 004

This outfall is located 100 yards south of outfall no. 007, on the western bank of the Monongahela River. The outfall is made of cement. The wastes received by this outfall are the reduced trivalent chrome and treated acid rinse waters. This outfall is an NPDES-permitted outfall under permit no. PA0005746. This trivalent chrome and acid rinsewater comes from the small chrome plating operations.^{2,3,5} During the site visit, site representatives stated that this outfall was separated from previously unused outfalls.^{2,3}

Date of Start-Up

Available information indicates that this unit has been active since the beginning of site operations.³⁸

Date of Closure

This unit is currently active.^{2,3}

Wastes Managed

The waste managed through this outfall is trivalent chrome reduced from hexavalent chrome. The acid rinse waters are also sent through this outfall after they have passed through a treatment tank to reduce the acidity level.³

Release Controls

The outfall is regulated under NPDES Permit No. PA0005746. The outfall receives trivalent chrome that has been reduced from hexavalent chrome. No other controls were observed. A discharge monitoring report is submitted to PA DER monthly. This outfall is analyzed for total suspended solids, oil, greases, chromium, and arsenic. (See appendix F for a discharge monitoring report for outfall no. 004.)^{3,5}

History of Releases

During the week of December 10, 1974, an oil sheen was noticed on the Monongahela River around the vicinity of outfall nos. 004 and 008. According to available information, the leak most likely came from under the oil booms installed in the Monongahela River around the vicinity of outfall nos. 004 and 008. Corning Glass Works used Dica-lite solvent granular material to remove the oil contained in the booms. All other discharges are regulated by an NPDES permit.^{3,5}

4.1.12 SWMU No. 12

Outfall No. 007

Outfall no. 007 is located 50 yards south of outfall no. 008 on the western bank of the Monongahela River. The outfall is constructed of cement. The outfall discharges stormwater into the river. The outfall is an NPDES-permitted outfall under permit no. PA0005746. During the site visit, site representatives stated that this outfall was separated from previously abandoned outfalls.^{2,3}

Date of Start-Up

Available information indicates that this unit has been active since the beginning of this operation.³³

Date of Closure

This unit is currently active.³

Wastes Managed

The waste managed here is stormwater drainage that flows into the drains that lead to the outfall. The storm water is discharged into the Monongahela River.³

Release Controls

The outfall is regulated under NPDES Permit No. PA0005746. The outfall receives stormwater drainage only. No other controls were observed. A discharge monitoring report is submitted to PA DER monthly. This outfall is analyzed for total suspended solids and dissolved iron. (See appendix F for a discharge monitoring report for outfall no. 007.)^{2,3}

History of Releases

Discharges from outfall no. 007 are regulated through an NPDES permit.³

4.1.13 SWMU No. 13

Outfall No. 008

The no. 008 outfall is located on the western bank of the Monongahela River. It is about 60 yards south of outfall no. 009. The piping is made of cement. The outfall discharges into the Monongahela River. The outfall is an NPDES-permitted outfall under permit no. PA0005746. During the site visit, site representatives stated that the outfall was disconnected from previously abandoned outfalls.^{2,3}

Date of Start-Up

Available information indicates this unit has been active since the beginning of the operation.³³

Date of Closure

This unit is currently active.^{2,3}

Wastes Managed

The wastes managed here are stormwater from roofs and surface water drainage that flows into the drains located around the site. They are discharged through this outfall into the Monongahela River.^{2,3}

Release Controls

The outfall is regulated under NPDES Permit No. PA0005746. The outfall currently receives stormwater drainage. No other controls were observed. A discharge monitoring report is submitted to PA DER monthly. This outfall is analyzed for total suspended solids, oil, grease, and arsenic. (See appendix F for a discharge monitoring report for outfall no. 008.)^{3,5}

History of Releases

During the week of December 10, 1974, an oil sheen was noticed on the Monongahela River around the vicinity of outfall nos. 008 and 004. According to available information, the leak most likely came from under the oil boom installed in the Monongahela River around the vicinity of outfall nos. 008 and 004. Corning Glass Works used Dica-lite solvent granular material to remove the oil contained in the booms. All other discharges are regulated by an NPDES permit.^{3,5}

4.1.14 SWMU No. 14

Outfall No. 009

This outfall is located north of the property on the Monongahela River. This outfall, which is made of cement piping, receives treated water from the filter press area and contact cooling water from the various processes using cooling water. The cooling water is used to cool off various pieces of glassware. This outfall receives water from the filter press area, where it goes through treatment to remove heavy metals. The outfall, which discharges to the Monongahela River, is an NPDES-permitted outfall under permit no. PA0005746. During the site visit, site representatives stated that the outfall was disconnected from piping leading to numerous other outfalls that are not used.^{2,3}

Date of Start-Up

Available information indicates that this unit has been active since the beginning of the operation.³³

Date of Closure

This unit is currently active.³

Wastes Managed

The waste managed here is the contact cooling water from the processes. The water is used through the heating processes. It also manages wastewater from the paint mix/filter press area. This water has gone through treatment to remove heavy metals and is then discharged through outfall no. 009.³

Release Controls

The outfall is regulated under NPDES Permit No. PA0005746. The outfall receives contact cooling water from processes in the MF manufacturing building. No other controls were observed. A discharge monitoring report is submitted to PA DER monthly. This outfall is analyzed for pH only. Currently, the process is inoperational because of the business cycle.^{2,3} (See appendix F for a discharge monitoring report.)

History of Releases

Discharges from outfall no. 009 are regulated through an NPDES permit.³

4.1.15 SWMU No. 15

Glaze Spray and Recovery Area

This area is located in the northern part of the new manufacturing building. This system is used to manage glaze overspray. The glaze is used on the glassware in spray booths. Glaze overspray and water are collected. This sludge is transported through a glaze and water separator. The separator filters the water out, and the glaze is collected on a large roller. This roller is scraped continuously to remove the glaze sludge. This sludge is EP toxic for lead and must be disposed as a hazardous waste. It is drummed and placed near the system to be removed by Chemical Waste Management Service. During the site visit, nine full and sealed drums were observed in this area. According to Mr. Helferstein, this glaze spray and recovery system is in the testing stage at the facility.^{2,3,38}

Date of Start-Up

Available information indicates that this unit has been active since 1988.³

Date of Closure

This unit is currently active.^{2,3}

Wastes Managed

The waste managed here is glaze sludge, which is EP toxic for lead. This glaze sludge is handled as a hazardous waste and is drummed in 55-gallon drums for disposal. The waste type stored here is D008.³

Release Controls

The glaze spray and recovery system is located in a room of the new manufacturing building. All walls around this system are cement. There are no floor drains in this area.³ During the site visit, the glaze sludge was overflowing from the receiving drum and falling to the floor.²

History of Releases

No releases from this unit have been reported or found.^{2,3}

4.1.16 SWMU No. 16

Solid Waste Storage Area

The solid waste storage area is currently active. It is located in the southern end of the property in a warehouse building. According to Mr. Helferstein, this area is located in the same building as the liquid waste storage area. The area is 15.6 by 26 feet in size, with a surrounding 6- by 6-inch cement curbing. A chain delineates the boundaries of this area. A ramp leads down into this area, adding to its preventative measures. The wastes that are stored here are baghouse batches.⁴⁰

Date of Start-Up

Available information indicates that this unit was first operated in 1988.³

Date of Closure

This unit is currently active.⁴⁰

Wastes Managed

The wastes that are managed here are baghouse dust that contains some lead and off-specification batches. The waste type stored here is D008.⁴⁰

Release Controls

This area is located inside a building in a cement-lined and -walled area.⁴⁰

History of Releases

No releases from this unit have been reported or found.⁴⁰